

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

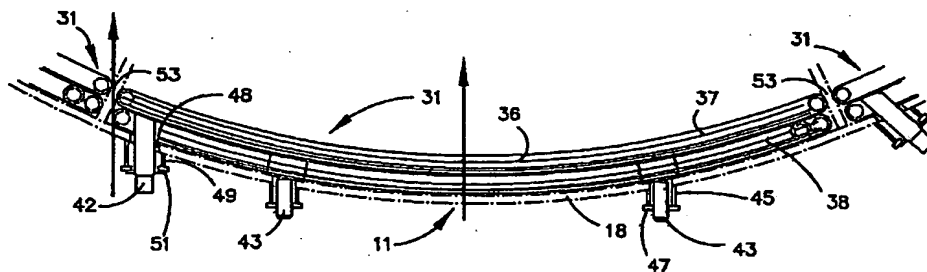
(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number
WO 2005/075688 A1

- (51) International Patent Classification⁷: C21B 7/10, F27D 1/12, F27B 1/24, 3/24
- (21) International Application Number: PCT/AU2005/000139
- (22) International Filing Date: 3 February 2005 (03.02.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 2004900544 4 February 2004 (04.02.2004) AU
- (71) Applicant (for all designated States except US): TECHNOLOGICAL RESOURCES PTY LIMITED [AU/AU]; 55 Collins Street, Melbourne, Victoria 3000 (AU).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): WEBER, Stephan, Heinz, Josef, Victor [DE/AU]; 15, South Perth Esplanade, South Perth, Western Australia 6151 (AU).
- (74) Agent: GRIFFITH HACK; Level 3, 509 St Kilda Road, Melbourne, Victoria 3004 (AU).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KB, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METALLURGICAL VESSEL



(57) Abstract: Cooling panels (31) are attached to the shell (11) of a metallurgical vessel to form an internal lining of the shell. Each panel (31) comprises a coolant flow tube (36) bent to form inner and outer panel sections (37, 38) of zig-zag formation. Panel mounting pins (43) connected to the outer panel section (38) by connector straps project laterally outwardly from the panel through openings (45) in the shell and tubular shell protrusions (46) surrounding the openings (45). The ends of pins (43) are connected to the outer ends of protrusions (46) by welding metal discs (47) thus forming connections exteriorly of the shell in a way which seals the openings (45). Coolant inlet and outlet connectors (42) for the panel project outwardly through openings (48) in the shell and surrounding tubular protrusions (49) and connections are made by welding discs (51) between the connectors (42) and protrusions (49).

WO 2005/075688 A1